

REMARKS

This is intended as a full and complete response to the Final Office Action dated April 25, 2003, having a shortened statutory period for response set to expire on July 25, 2003. Please reconsider the claims pending in the application for reasons discussed below.

In the specification, the paragraph on page 7, lines 2-11, have been amended to correct typographical errors. Support for the changes can be found on page 4, line 9, of the specification.

Claims 1-3, 5, 7-9, 11-17, and 19, are pending in the application. Claims 1-3, 5, 7-9, 11-17, and 19, were considered and stand rejected. Applicants cancel claim 9 without prejudice. Applicants submit new claims 21-24 for consideration by the Examiner. Applicants believe that no new matter has been introduced in this response. In view of the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. § 103. Thus, Applicants believe that all of these claims are in allowable form.

Claims 1-3, 5, 7-9, 11-17 and 19 stand rejected under 35 U. S. C. § 103(a) as being obvious over *Landin et al.* (U.S. Patent No. Re 36, 806, reissued August 1, 2000) in view of *McCormack* (U. S. Patent 4,726,007, issued February 16, 1988) and *Fuji et al.* (Japanese Patent Application JP 08-073676, published March 19, 1996). Applicants respectfully respond to the rejection.

Landin et al. discloses a method for damping a rotatable storage article using one or more internal damping layers positioned within a structural (core) layer of the article (*Landin et al.*, FIGS. 2-3, 4-4B; col. 3, lines 13-23, and col. 4, lines 53-58). *Landin et al.* teaches a multi-layered "sandwich" of the structural, i.e., core layers, and damping layers. Thus *Landin et al.* teaches away from a core material having damping agents, reinforcing agents, or combinations thereof. Further, *Landin et al.* does not teach the use of one or more skin layers disposed adjacent the core layer.

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McCormack et al. discloses a damper system comprising a damper disc 24 disposed on top of a CD disc 20 (See, Figs. 1-2, Abstract). The damper system includes a CD damper disc 24 laid on top of a CD disc 20 (See, Fig. 1 and column 4, lines 39-47). The CD damper disc 24 comprises a circular disc made of either carbon fiber reinforced epoxy plastic or polytetrafluoroethylene (TEFLON) (See, column 5, lines 24-44).

Fuji discloses a vibration damping material (See, Abstract, line 1). The vibration damping material comprises a base resin, a styrene-isoprene-styrene block co-polymer resin and iron oxide particles (See, Abstract, lines 7-11). The base resin may be either of a polypropylene resin, a polystyrene resin, an acrylonitrile-butadiene-styrene copolymer resin, a polycarbonate resin a polyphenylene ether resin and a modified polyphenylene ether resin (See, Abstract, lines 3-5).

Thus, the combination of *Landin et al.*, *McCormack*, and *Fuji et al.* does not teach, show, or suggest a substrate for use in a data storage system, comprising at least one core layer comprising at least one plastic or plastic composite material exhibiting a modulus of about 350 kpsi or greater and damping agents, reinforcing agents, or combinations thereof, wherein the damping agents, reinforcing agents, or combinations thereof, are substantially uniformly distributed within the plastic or plastic composite material and one or more skin layers disposed adjacent the at least one core layer, wherein the at least one core layer has a greater thickness than the one or more skin layers, as recited in claim 1, and claims dependent thereon.

The combination of *Landin et al.*, *McCormack*, and *Fuji et al.* does not teach, show, or suggest a substrate for use in a data storage system, comprising at least one core layer made of a plastic or plastic composite material having damping agents, reinforcing agents, or combinations thereof and one or more skin layer made of a plastic or plastic composite material, and formed on at least one surface of the core layer, wherein at least one of the core or skin layers exhibits a modulus of 350 kpsi or greater, and wherein the at least one core layer

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has a greater thickness than the one or more skin layer, as recited in claim 14, and claims dependent thereon.

The combination of *Landin et al.*, *McCormack*, and *Fuji et al.* does not teach, show, or suggest an apparatus, comprising a disk drive spindle motor and at least one data storage disk mounted on said disk drive spindle motor wherein said storage disk comprises at least one core layer that is formed of a plastic or plastic composite material and damping agents, reinforcing agents, or combinations thereof, wherein the damping agents, reinforcing agents, or combinations thereof, are substantially uniformly distributed within the plastic or plastic composite material, and one or more skin layers disposed adjacent the at least one core layer, wherein the at least one core layer has a greater thickness than the one or more skin layers, as recited in claim 19, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

In Conclusion:

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the invention as claimed.

Therefore, claims 1, 14, and 19, as amended, and claims dependent thereon, are patentable over *Landin et al.* in view of *McCormack et al.* and *Fuji et al.* and, as such, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.


The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the final office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed. If, however, the Examiner believes that any unresolved issues still exist in any of these claims that require a continuance of the adverse first action therefor, it is requested that the Examiner telephone Mr.

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James Sheridan, at (650) 330-2310, so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,



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